DOCUMENT RESUME

ED 286 141 CG 020 225

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TITLE Cognition in Counseling: Integrating Two Theoretical Approaches.
PUB DATE May 87
NOTE 42p.; Paper presented at the Annual Meeting of the Midwestern Psychological Association (59th, Chicago, IL, May 7-9, 1987).
PUB TYPE Reports - General (140) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Attitude Change; *Cognitive Processes; *Counseling Techniques; *Counseling Theories; Learning; Models
IDENTIFIERS *Cognitive Instructional Counseling; *Elaboration Likelihood Model

ABSTRACT

Learning and attitude change are two cognitive processes essential to therapeutic change in counseling. Recently two cognitive models that reflect current research and theory, one focusing on learning and the other on attitude change, have each been applied to counseling with promising results. Martin's cognitive instructional counseling (CIC) is a learning or information processing model of counseling. Petty and Cacioppo's elaboration likelihood model (ELM) is a model of attitude change processes that has been applied to counseling. These two models are compatible and complementary with respect to change processes in counseling. By integrating these two distinct approaches to cognitive change in counseling, one based upon learning processes (CIC) and one based upon attitude change processes (ELM), a unified model of cognitive change in counseling can be formulated. The benefits of this integrated decision tree include: (1) providing an example of the unification of different theoretical models that share a common conceptual base; (2) facilitating research based broadly upon relevant cognitive processes; (3) presenting a practical decision tree that can be used and assessed in counseling settings; and (4) providing counselors with examples of ways that counseling researchers can conceptualize counseling. Figures are provided. (ABL)

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Presented at the 59th Annual Meeting of the Midwestern Psychological Association, Chicago, May 1987.

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Cognition in Counseling: Integrating Two Theoretical Approaches

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Abstract

This article presents a decision tree in which two distinct approaches to cognitive change in counseling, one based upon learning processes and one based upon attitude change processes, are integrated into a unified model of cognitive change in counseling. Martin's (1987b) cognitive instructional counseling (CIC) is a learning or information processing model of counseling. Petty and Cacioppo's elaboration likelihood model (ELM) is a model of attitude change processes that has been applied to counseling. These two models are compatible and complementary with respect to change processes in counseling. In addition to presenting the decision tree, this article describes basic points of comparison between the ELM and CIC, outlines each model, and describes relevant research

Cognition in Counseling:
Integrating Two Theoretical Approaches

Learning and attitude change are two cognitive processes essential to therapeutic change in counseling. Both processes have been examined using a variety of cognitive models. Learning is the process of acquiring information or knowledge. Attitude change is the process of altering attitudes, which can be defined as evaluations of persons, situations, or objects, along the positive-negative continuum.[1] In counseling, both learning and attitude change should ideally result in enduring therapeutic behavior change.

Although some counseling interventions explicitly emphasize instructional and/or persuasive components and others do not, we contend that all approaches involve some instruction and that at some point in counseling, nearly all involve attitude change. This is because clients commonly have negative attitudes toward the processes, interventions or changes that the counselor believes are warranted.

Recently, two cognitive models that reflect current research and theory, one focusing on learning and the other on attitude change have each been applied to counseling, with promising results. The goal of this article is to integrate the two models into a decision tree designed to facilitate counseling research and to help counselors apply the knowledge of the two approaches with clients. Martin's (1987b) cognitive instructional counseling

(CIC) is a learning or information processing model of counseling. In the CIC, Martin views counseling as a specialized form of instruction, in which acquiring counseling-relevant cognitions or information forms the core of counseling. Petty and Cacioppo's elaboration likelihood model (ELM; 1986) is a model of attitude change processes that has been applied to counseling. Petty and Cacioppo (Cacioppo, Petty, & Stoltenberg, 1985; Petty, Cacioppo, & Heesacker, 1984) have described the application of the ELM to counseling as an extension of the research begun by Strong (1968) on counseling as a social influence process.

These two models have been selected for integration for several reasons. First, they are based upon current theory and research in cognitive and social psychology. Second, they have each shown promising results in their application to counseling. Third, they both emphasize cognition as important in the change process. And finally, the CIC and ELM emphasize different and complementary aspects of cognition as a part of the change process.

A distinction must be made between learning and attitude change, which are outcomes, and instruction and persuasive communication, which are the intentional attempts, in this case by counselors, to cause those outcomes. Instruction is not the only way in which learning occurs, nor is persuasive communication the only way in which attitude change occurs. However, instruction and persuasive communication will be highlighted because the focus of this article is on intentional

counselor behavior.

Distinctions Between Instructional and Persuasive Communication Approaches

How do instruction and persuasive communication differ? First, the two may be applied most effectively in different situations. Instruction (associated with CIC) is probably most appropriate when the client initially agrees with or accepts the plan of counseling and recognizes the utility of the content to be learned. Instruction is, in this case, likely to result in learning and behavior change consistent with this learning. For example, a client who comes to counseling for study skills is likely to accept the plan of instruction in study skills, is likely to learn new study skills, and is likely to show improved studying behavior. Persuasive communication (associated with ELM) is probably most appropriate when the client is not initially in agreement with the plan of counseling and does not recognize the utility of the content to be learned. The result of instruction in a situation where the client is not accepting of content is likely to be decreased learning (e.g., selective attention; see Kleinhesselink & Edwards, 1975), very little behavior change, and perhaps behavior change opposite to that desired by the counselor (e.g., psychological reactance; Brehm, 1966). However, if a persuasive communication precedes instruction, resulting in the client having a favorable attitude toward the counseling plan and the content to be learned, effective instruction should be possible.

A second difference between instruction and persuasive

communication involves the type of cognitions to be changed. Instruction typically attempts to change relatively "cold" or dispassionate cognitions. Persuasive communication typically attempts to change relatively "hot" or emotion-laden cognitions. Indeed, because attitudes, the target of persuasive communication, are evaluations along the positive-negative continuum, they nearly always involve an emotional component. However, information or knowledge, the target of instruction, need not be associated with emotion and frequently is not.

Because instruction influences knowledge and persuasive communication influences attitudes, distinguishing between knowledge and attitudes is another way to distinguish between instruction and persuasive communication. Knowledge connotes the acquisition of cognitions that are true in an objective or absolute sense. Attitudes connote the acquisition of cognitions that are true only in a subjective, private or relative sense. Contradictory attitudes are acceptable, contradictory knowledge is not. Unfortunately, this description dichotomizes what is actually a continuum. Objective, absolute truth serves as one pole, subjective, private truth as the other. In daily life, knowledge and attitudes probably fall somewhere between these two poles.

Distinctions between instruction and persuasive communication, between learning and attitude change, and between knowledge and attitudes, while useful, are not perfect. Research has indicated that attitudes can both be acquired and

changed through learning processes (see Petty & Cacioppo, 1981). However, in this case the overlap between attitudes and learning is not particularly troublesome. Although clear evidence exists for the influence of classical and operant conditioning on attitude change processes, evidence for the influence of message or content learning, which is most akin to Martin's CIC, on attitude change is not very convincing. Evidence suggests that, at best, learning message content affects attitudes indirectly by triggering topic-relevant cognitions. In many cases, message content is simply ignored in the formation or alteration of attitudes. These findings are reflected in the ELM (see Petty & Cacioppo, 1986).

Advantages of Integrating the Two Approaches

A cognitive model of counseling that integrates instructional and persuasive communication approaches has distinct advantages over separate models. First, theoretical models that draw from a common source should be integrated whenever possible, so that research relevant to the model has the greatest likelihood of being retrieved and applied. Frequently, conceptually similar models seem to operate in intellectual independence of one another, thereby retarding the advancement of each. The CIC and ELM share a common conceptual core based upon research on human cognitive processing. By integrating these two models research germane to each will have a better chance to be retrieved and used, thus improving the work on both.

Second, integrating these models can help broaden the number of methodological tools available to researchers in the two areas. For example, the integrated model could bring the thought-listing technique from ELM to instructional research and the cognitive training technique from CIC to persuasive communication research. Without this integration, such sharing of research techniques is less likely, resulting in unnecessary limitation of the tools used by researchers.

Third, although previously dichotomized, research on instruction and persuasive communication in counseling may be conceptualized more profitably as expressing two aspects of information processing, one relatively low in resistance and high in objectivity and the other higher in resistance and lower in objectivity. As conceptualized here, instruction and persuasive communication share important components, but not so many that their distinctions should be ignored, nor so few that their relationship should be downplayed.

Fourth, integration of these two models advances a global goal of counseling research, namely to coalesce a group of diverse theoretical perspectives into a practical, integrated group of approaches that are effective in counseling clients. The interface of these two models constitutes a logical beginning point for more extensive integration.

The Relationship Between Counseling Theories and these Models

One important clarification involves the role of either CIC- or ELM-based approaches in counseling. Such approaches are

intended to enhance the efficacy of treatments, not to substitute for treatments. Neither instruction nor persuasive communication can be helpful to clients if the content being conveyed is inaccurate or inappropriate. The strength of instructional and persuasive communication approaches resides in their ability to enhance acquisition and retention of therapeutically relevant information, attitudes, and behaviors.

Cognitive Instructional Counseling

Drawing from both his theoretical and empirical work published over a 10 year period, Martin (1985b, 1987b) has recently articulated his CIC approach. Three of its most important elements, cognitive mediation, correspondence, and basic therapeutic elements will be described next.

Cognitive Mediation

Martin (1984) suggested that a major weakness of counseling research is that it has ignored cognitive processes and their effect on counseling interactions and outcomes. Counseling researchers have traditionally employed the process-product paradigm, which depicts counseling as a unidirectional process. In this traditional paradigm the emphasis is simply on viewing counselor behaviors and characteristics as affecting client thoughts and behavior. Martin challenged this model and suggested an alternative, the cognitive mediational paradigm, which describes counseling as an interactive process between counselor and client, one invclving both cognitions and behavior (see Figure 1). According to Martin (1984, 1987a, 1987b),

counseling research will progress by viewing counseling as an interactive, cognitively-mediated process, and by identifying and measuring the cognitive components of counseling and their impact on outcome.

Insert Figure 1 about here

In Martin's (1987b; Martin & Hiebert, 1985) CIC, the major therapeutic goal is the acquisition of counseling-relevant knowledge. In CIC, affective and behavioral changes are based on the cognitive changes that occur during counseling. CIC is a direct approach designed to communicate counseling-relevant knowledge and information to clients using instructional principles derived from cognitive science.

Correspondence

Martin (1984) has suggested that an essential requirement for counseling success is correspondence between different aspects of the counselor's and client's cognitions and behaviors. Correspondence can be defined as consistency or agreement. For example, when a counselor decides to respond supportively to a client and the client feels supported, there has been correspondence between the counselor's cognitions (the desire to support) and his or her behavior (a specific supportive behavior), and between the counselor's behavior and the client's perception (of being supported). Important areas of correspondence are (1) between cognitions and behaviors within the counselor or client,

(2) between counselor cognitions and client cognitions, and (3) between counselor behavior and client behavior. Martin has (1987b) contended that counseling is most effective when counselors' observable behaviors accurately communicate their intentions. Clients, in turn, must accurately perceive and cognitively process this observed behavior, and accurately communicate their cognitive reactions using observable behaviors. Coming full circle, counselors must accurately perceive clients' observable behavior, for effective counseling. If correspondence between the cognitions and observable behavior within either the counselor or client is low, or if correspondence between client and counselor are low, positive effects will be reduced.

What are the cognitive requirements for correspondence to occur? Martin (1984) has suggested that correspondence is likely when the following four requirements are met: (1) both counselor and client are cognitively attending; (2) they are able to accurately perceive each other's intent; (3) they each have the ability to cognitively process what they observe; and, (4) they each have the motivation to cognitively process what they observe. These last two requirements of ability and motivation are similar to requirements for enduring attitude change, as specified in the ELM, which will be described later.

Basic Therapeutic Elements of CIC

Table 1 depicts the seven distinct steps of the CIC approach. Although these steps are presented in sequence, it is often

appropriate to vary their order or for counselor and client to be involved in some steps simultaneously. The first step is to set goals for counseling. Martin (1987b) views people as essentially goal directed. Counseling goals facilitate the meeting of client personal goals and identify areas in which a client can benefit from instruction. Goals are chosen by the client, but also are likely to be influenced by the counselor. The second step is to make preassessments by both the counselor and client exploring and gaining understanding of client concerns. This exploration and understanding provides the foundation for setting specific objectives for counseling. Third, the client and counselor acquire information specifically designed to facilitate client understanding of client concerns and potential solutions. Traditional bibliotherapy would fit here. Fourth, clients are encouraged to personalize, which is to increase their awareness of their own role in their difficulties, and their potential and responsibility for effecting change toward their goals. Fifth, clients and counselors set objectives and plans, which means determining specifically what skills and knowledge need to be acquired by clients in order for client goals to be achieved. Sixth, with the help of counselors, clients act. That is, they enact and modify counseling plans to achieve client goals. Seventh, counselors work with clients to evaluate the outcome and assist in transfer. This involves evaluating both short- and long-term changes and facilitating consolidation of these changes so that they are generalized beyond counseling. Evaluation should go on

periodically throughout counseling.

Insert Table 1 about here

Research and CIC

Martin (1984) has suggested four measures of the cognitive processes that occur during counseling. These measures are (1) process tracing, in which participants think aloud in order to reveal their thoughts about counseling; (2) stimulated recall, in which clients are asked to describe their in-session thoughts using video- or audiotape of counseling to stimulate their memory of the interaction, similar to Kagan's (1975) interpersonal process recall; (3) cognitive training, in which client-subjects use simple sign language to communicate information about their cognitive processes during actual counseling. (4) Martin (1985a) described a final cognitive measure that uses a technique of word association and graphing in order to illustrate cognitive change throughout the course of counseling. Martin (1987b, ch. 5) has provided an extensive example of this "Bristol Board Technique," so called because each cognitive response is written on a single gummed piece of paper that is affixed to a piece of laminated bristol board. Martin, Martin, Meyer, and Slemon (1986) provided an example of the use of stimulated recall in CIC research that will be discussed next.

Martin et al. (1986) investigated the usefulness of the CIC for counseling. The use of real counselors and clients actively

engaged in counseling is a hallmark of CIC research, as is an emphasis on combining qualitative and quantitative methods. Perhaps as a result of these unusual characteristics, and an emphasis on uniting theory with practice, this study by Martin et al. was given an award in 1987 for research in counseling by the American Educational Research Association.

Stimulated recall methods were used to analyze the cognitions of 10 counselor-client dyads in a total of 29 counseling sessions. Relationships among counselor intentions, counselor behaviors, client perceptions, client cognitive processes, and client behaviors were measured. Results indicated strong relationships among interpersonal behavioral components, such as the relationship between client behavior and counselor behavior, and among intrapersonal cognitions and behavior such as the relationship between client cognitions and client behavior. The relationships among interpersonal cognitive components, such as the relationship between counselor intention and client intention, were weaker. More importantly, with one exception, the correlation between correspondence and ratings of counseling effectiveness were positive, in line with the CIC model. The one exception was between counselor intentions and client perceptions. Subsequent research, in which dyads, not aggregated groups, were analyzed showed the expected positive relationship between counselor intention-client perception correspondence and ratings of counseling effectiveness (Martin, personal communication to M. Heesacker, June 2, 1987).

Not only has the correspondence notion been assessed, but so has the general efficacy of the instructional counseling model, in its earlier version (Martin & Hiebert, 1985), which is quite similar, but slightly less comprehensive than the current CIC. Results from a series of three studies that employed instructional counseling to alleviate test anxiety provide clear support for the approach. Martin (1978) has summarized that research: "Taken together, the results of [this] experimental work...indicate that participation in programs of instructional counseling can help clients acquire a wide variety of skills, knowledge, and attitudes that can be used to alleviate their problems and achieve personally-desired goals" (p. 87)

Strengths and Limitations of CIC

One major strength of the CIC is that it encourages research that is based upon the metatheoretical framework of cognitive science, rather than on a more narrow theoretical base, or on no theoretical base, as is often the case in counseling research. Having such a framework is not unique to CIC, but is important and not particularly common.

A second important strength is that the CIC proposes processes than mediate successful counseling outcomes. Some counseling research has been limited in the degree to which mediating processes were considered (see, for example, a recent commentary on social influence research, by Heppner, Menne, and Rosenberg, 1986). By examining cognitive activity as a mediating factor between counseling and outcome, researchers may

develop relatively simple ways of understanding what now appear to be confusingly complex patterns.

Third, CIC is an improvement over many counseling models because in it counseling is viewed interactively, rather than unidirectionally, from counselor to client. By recognizing cognitive activity and the the interaction of client and counselor as basic to understanding counseling, the process-product paradigm is expanded and, thus, improved.

A limitation of CIC is its restricted focus on information or knowledge. CIC is perhaps best suited to cognitive approaches, such as rational emotive therapy (RET; Ellis, 1971; see Martin, 1987b, ch. 3, for an information processing interpretation of RET) and cognitive behavior modification (CBM; Meichenbaum, 1977). These therapies fit with CIC because in them cognitive change is viewed as essential to the therapeutic enterprise and because the counselor is attempting to alter dysfunctional cognitions through learning. In many other types of counseling, however, the instructional component may be smaller, or the theoretical conceptualization may not be compatible with the instruction metaphor, thus posing a barrier in implementing CIC.

Another limitation, one likely to be addressed soon, is the absence of research by people other than Martin and his coauthors on the CIC. Clearly, the work of Martin and colleagues supports the CIC, but work by others is needed as well, to enhance the breadth of support for the model.

The Elaboration Likelihood Model

A large body of literature views counseling as a social influence process often resulting in attitude change (see reviews by Corrigan, Dell, Lewis & Schmidt, 1980; Heppner et al., 1986). A portion of this literature has begun to reflect recognition of the complexity of counselor-client interactions. Attitude change research in counseling has focused primarily on the relationship between a client's perceptions of the counselor and the client's attitude change. This literature has conceptualized counseling as a process of attitude change, rather than as a learning process. Counseling interactions involve a variety of forms of attitude change. A counselor may attempt to influence a client to believe, for example an alcoholic client, that he or she does have a problem and does need to work towards its resolution. A counselor may need to convince a different client, for example, a recently divorced client, not that there is a problem, but of the usefulness of counseling and the importance of the client's commitment to counseling in solving this problem. Counseling typically involves some degree of attitude change. The counseling process and its successful outcome may be more fully implemented and understood when the cognitive processes of attitude change are considered.

Several social psychological approaches to attitude change are cognitive in nature and recognize the important role of cognitive activity in attitude change processes (see Petty & Cacioppo, 1981, chap. 8, for an overview). These cognitive approaches view

a person's own thoughts and cognitive elaboration as essential to attitude change. According to this view, a person is most persuaded by his or her own thoughts, rather than merely by the argumentation of others. This view shares Martin's emphasis on cognitions as central to the interactions between counselor and client and his contention that this relationship cannot be understood without studying and measuring the cognitive activity that occurs during counseling. Cognitive approaches to attitude change include Janis's (1968) role-playing research, Tesser's mere thought research (Tesser & Leone, 1977), and Petty, Ostrom, and Brock's (1981) cognitive response approach. The most fully developed and most thoroughly tested of these approaches, Petty and Cacioppo's (1986) ELM will be described next.

Description of the ELM

The ELM (Petty & Cacioppo, 1981, chap. 9; 1986) views attitude change along a continuum anchored by the central route, at one end, and the peripheral route, at the other. Elaboration likelihood refers to the likelihood that the recipient of a persuasive message will cognitively elaborate on the topic or arguments presented. The motivation and ability of a person to cognitively process a message determines which route of attitude change may occur and, therefore, the relative influence of message variables, such as argument strength and cue variables, such as source credibility. Figure 2 depicts the ELM.

The central route involves thoughtful consideration of the topic and typically of a persuasive communication. It occurs

when a person is both able and motivated to cognitively process (or carefully consider) the topic (see Figure 2). When these conditions are fulfilled, a person is more likely to cognitively elaborate upon the arguments presented in a persuasive communication. Central route attitude change is often heavily influenced by message factors such as the subjectively-perceived strength of the persuasive arguments. If the person or client's predominant thoughts are favorable to the message arguments, then genuine and lasting attitude change can take place. If the predominant thoughts are unfavorable to the message arguments, then attitude change in the direction opposite to the message may take place. If neither favorable or unfavorable thoughts predominate, central route attitude change is not likely to take place, but peripheral change may take place. Consolidation of predominantly favorable or unfavorable thoughts into long-term memory is required for central route attitude change. Central route attitude change is persistent, correlates with behavior, and is resistant to counterargumentation.

Insert Figure 2 about here

If the person is not able or motivated to cognitively elaborate on the persuasive message presented, or if neither favorable or unfavorable thoughts predominate, or if thoughts are not stored in long-term memory, then peripheral route attitude change may occur. Peripheral route attitude change is based on associations

with positive or negative cues. If a persuasive message is associated with an expert's opinion or an attractive setting, for example, these may act as cues that will trigger peripheral route attitude change by the recipient. Peripheral route attitude change is generally less persistent, less predictive of behavior and less resistant to counterargumentation than central route attitude change. For example, when a message is no longer associated with the persuasive cue, a person will usually return to his or her original attitude. If a person is not able or motivated to cognitively consider a persuasive message and no peripheral cues are present, then no attitude change is likely to take place.

When ability and motivation to process are not clearly high or low, results of several recent studies (e.g., Heesacker, 1986a; Heesacker, Petty, & Cacioppo, 1984; Puckett, Petty, Cacioppo, & Fischer, 1983) suggest that the effect of cues and message variables may be interactive. For example, if an individual is only moderately motivated to cognitively elaborate upon a persuasive message, knowing that it is being presented by a source of high credibility may enhance motivation to the degree that the person will think about the message. It now appears that counseling clients may be moderately motivated, relative to high motivation and low motivation created via experimental manipulations (Petty, et al., 1984; Heesacker, 1986a, 1986b). For this reason, it may be important to derive and consider predictions for moderate motivation to process when considering social influence in

counseling.

Predictions derived from this research suggest that in some circumstances, such as when a message is proattitudinal, a source of low credibility may motivate greater cognitive processing than one of high credibility. This greater cognitive processing may result in more attitude change if the message is sufficiently cogent, and thus elicits mostly favorable cognitive responses. This can be understood using Heider's (1958) balance theory. The inconsistency between a proattitudinal message presented by a low credible source or between a counterattitudinal message presented by a highly credible source both can be thought to represent imbalance and to result in increased elaboration likelihood.

Research and the ELM

To briefly summarize the results of 100+ studies that have assessed various aspects of the ELM, several points should be made. Every major aspect of the model has been supported by empirical research. In line with ELM predictions, central route attitudes have been shown to require motivation and ability to think about the topic, to be mediated by subjects' topic-relevant thinking, to most often be based on thoughts about message content and not on reactions to cues, to persist over time, to predict behavior, and to be more resistant to counterpersuasion, relative to peripheral route attitudes. Peripheral route attitudes have been shown not to require motivation and ability to think about the topic, to be mediated by subjects' perceptions of cues,

to most often be based on reactions to cues and not on thoughts about message content, not to persist over time, not to predict behavior, and to be less resistant to counterpersuasion, relative to central route attitudes (Petty & Cacioppo, 1986). For specific details, readers are referred to Petty & Cacioppo's (1986) monograph in which an exhaustive literature review is found and in which the ELM is presented in a more formalized, seven postulate format.

Research on the ELM and counseling is just beginning. Several chapters have been written about how to apply the ELM to counseling (e.g., Cacioppo, et al., 1985; Heesacker, 1986b, Petty et al., 1984; Stoltenberg, 1986). In general these chapters discuss aspects of counseling research that could benefit from drawing on ELM theory and research and have attempted to reframe existing social influence research using the ELM. Several empirical studies have been published, as well (e.g., Heesacker, 1986a; Stoltenberg & Davis, in press; Stoltenberg & McNeill, 1984). These studies are laboratory analogues, some of whose findings were different from hypothesized, thus confirming the need for studies explicitly on ELM and counseling. In each of these studies, the results could be explained using ELM, for example by reconceptualizing counseling as moderately involving (see previous section), and could not be explained easily using more traditional models of social influence in counseling (e.g., Strong's 1968 model).

Like CIC, the ELM brings an unusual set of research tools and

techniques to counseling research. For example, to ascertain the kind of cognitive processing subjects are engaged in, Petty and Cacioppo ask subjects to list the thoughts they had while being exposed to the persuasive communication. These thoughts are then rated by judges, creating quantitative data from qualitative data, thus preserving precision and subjects' ability to respond naturally. They have also developed individual difference and psychophysiological measures, in addition to more typical experimental measures and manipulations. These have allowed the detection of powerful person X situation interactions and the association of attitude change processes with basic physiological processes. The interested reader is referred to the chapter on research methodology in Petty and Cacioppo's (1986) text.

Strengths and Limitations of the ELM

Two strengths the ELM shares with CIC are a metatheoretical framework based upon cognitive science and the proposition of processes than mediate successful outcomes, in this case counseling outcomes. Another strength of the ELM is the large body of basic research that has confirmed the model's validity. While questions regarding the specifics of application to counseling remain to be fully answered, the fundamental explanatory power of the ELM has been demonstrated very clearly.

A final strength of the ELM is that it continues and enlivens a very strong and active area of traditional counseling research, the social influence area. The ELM provides a theoretical update

to that area and holds promise for helping to resolve some difficult research problems that have arisen (see Heesacker, 1986b).

One limitation of the ELM is that it was not explicitly designed for counseling. While the ELM has already contributed importantly to understanding social influence phenomena and to improvments over earlier theory, as the early ELM-counseling research has shown, basic laboratory results have not translated easily to counseling.

Another limitation, from a counseling viewpoint, is that the ELM is applicable only to processes of attitude change and not to other processes that occur within counseling. The proportion of counseling that is devoted to attitude change has not been assessed, but may not be large. Therefore, the ELM must be considered together with other models in order to broadly understand and improve counseling.

A second limitation is that only a relatively few research studies have applied the ELM to counseling, and then not using actual counselors and clients. So the final determination of the degree to which the ELM can be applied to counseling awaits additional research.

An Integration of the ELM and CIC

Because CIC and ELM share a cognitive-processing framework and yet are applicable to different and complementary aspects of the counseling process, an approach integrating them into a coherent framework is desirable. In the model to be discussed

next, the CIC and ELM are incorporated at different stages in the counseling decision-making process. The integrated model assumes that the goal of counseling is behavior change, with behavior broadly conceptualized. In actuality, each client might best be served by a series of behavior changes, and in such cases the model can be applied repeatedly, for each discrete behavior in the series. In addition, the model does not reqire all target behaviors to be at one particular level of generality. With an individual client, different behaviors in a series also need not be at the same level of generality. For example, a client's desired increase in study time for an academic course (a very specific behavior) can be facilitated in the same series as his or her desired acquisition of better social skills (a more general behavior).

The decision tree to be depicted next is built on four assumptions. The first, which involves implementation of the CIC approach, is that the most reasonable first course of action following a failure to achieve behavior change is to assess if the basic content necessary for the execution of that behavior (e.g., specific skills in improving overall social skills) has been learned. The second, which involves implementation of the ELM, is that if the essential content has been learned, but behavior change has not been achieved, perhaps resistance to the content or the topic of the content has been engendered, which could, perhaps, be removed through attitude change processes. The third, which also involves implementation of the CIC, is that if appropriate

attitude change attempts fail to cause attitude change in the desired direction, perhaps questions of basic understanding, or correspondence, between counselor and client should be addressed. The fourth is that in cases where issues regarding content, resistance, and basic understanding appear to have been resolved in a satisfactory fashion, perhaps the client has changed internally, but has been limited by environmental constraints from expressing this change, similar to the acquisition-performance distinction in learning research.

The Decision Tree

Figure 3 depicts a decision tree that incorporates the CIC and ELM into a single framework. Terminal points are depicted as ovals, decision points as boxes, and intermediate intervention points as boxes with rounded corners. The counselor makes an intervention and assesses if the desired behavior change is achieved. If not, the counselor assesses if the therapeutic content (e.g., study skills, relaxation training) was learned. If not, learning ability is assessed. If ability is sufficient, CIC strategies are invoked. CIC strategies involve setting goals and objectives and engaging in instructional activities designed to facilitate learning and to meet counseling goals. If learning ability is not sufficient, counseling is not appropriate for this client. After CIC strategies are implemented, again, behavior change is assessed.

Insert Figure 3 about here

If content is acquired, but behavior change was not achieved, the counselor assesses client resistance. If the client expressed resistance, then the counselor attempts to change the client's resistance using the ELM. If attitude change results, again behavior change is assessed; if no attitude change results, the counselor assesses if each of the ELM central route attitude change conditons were met. These conditions include high motivation and ability to process, high message cogency, and consolidation of client's thoughts into memory. If these conditions were not met, modifications are made by the counselor to facilitate or create these conditions and attitude change is attempted again.

If these attitude change conditions were already met, but attitude change did not result, the counselor is asked to assess the correspondence between counselor and client cognitions and behavior. If there was some lack of correspondence, modifications are made until correspondence is achieved. Lack of correspondence may have caused misdiagnosis and, therefore, an incorrectly selected intervention, or might have hindered the implementation of a correctly-selected intervention. So, after these modifications, or if there already was correspondence, the counselor next assesses if the intervention was chosen accurately.

If a new intervention has already been selected and implemented, the counselor is asked to assess the client's capability of expressing a change that might exist internally. If the client does have the ability to express this internal change, behavior change is reassessed. If a client is unable to express this change, an environmental intervention may be required. This intervention would be designed to create or foster an environment that would support the client's change and allow the behavioral expression of it.

Conclusion

Two cognitively-based models that each have been applied to counseling were found to be sufficiently complementary that they have been integrated into a single model, represented by a decision tree for counselors. The models represent both learning and attitude change approaches. Potential benefits of this integrated decision tree include (1) providing an example of the unification of different theoretical models that share a common conceptual base; (2) facilitating research based broadly upon relevant cognitive processes, rather than narrowly on specific subprocesses; (3) presenting a practical decision tree that can be used during counseling and whose utility can be assessed in counseling settings; (4) providing counselors with examples of ways that counseling researchers conceptualize counseling (see Martin, 1987a). Because this decision tree awaits empirical validation, its use in counseling practice should be tempered with caution and with primary reliance on approaches that have been

empirically demonstrated safe and effective.

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Author Notes

The order of authorship does not indicate seniority. We wish to express our thanks to Don Dell, Jack Martin, and Heather Tatten for very useful comments on drafts of this manuscript, a portion of which was prepared while the second author was a Fulbright Scholar at Erasmus University, Rotterdam, Netherlands. A version of this manuscript was presented at the 1987 annual meeting of the Midwestern Psychological Association, in Chicago. Request reprints from Martin Heesacker, Ohio State University, Department of Psychology, 1885 Neil Avenue, Columbus, OH 43210.

Footnote

[1]Definitions of attitudes such as this one, which emphasizes evaluation, are commonly used in attitude research, however definitions emphasizing cognitive, affective, and behavioral aspects are also common, and generally are compatible with the way the term is used here. The evaluation definition includes both affective and cognitive components, but not a behavioral component. In the attitude change model employed here, a distinction is made between a type of attitude change that is likely to influence behavior and one that is less likely to influence behavior, therefore the behavioral component is not ignored. In fact, its relationship to the affective and cognitive components is more explicit than in most other models of attitude change.

TABLE 1

Basic Therapeutic Elements and Frequently Associated Strategies or Methods and Effects

Basic therapeutic elements	Examples of frequently associated therapist strategies or methods	Effects vis-à-vis client change
Relating and setting goals	Basic interviewing skills, active listening and empathy, structuring and clarifying process and goals	Orientation to therapy, development of trust and rapport, initial development of a dynamic processing capability
Preassessing	Probing strategies, set induction methods, role plays, in vivo demonstrations, gestalt dialogues, "think aloud and thought-listing" methods, administration of psychological tests	Development of elaborated problem schemas, insight and understanding
Acquiring information	Bibliotherapy, direct instruction, clarifying discussion, experiential learning activities	Acquisition of task-relevant problem-solving structures, insight and understanding
Personalizing	Awareness-enhancing exercises (e.g. gestalt methods), self-monitoring, analysis of belief systems, homework assignments	Development of empowered self-schemas, integration of self- and problem schemas, motivation
Setting objectives and plans	Problem clarification, joint planning, making commitments, arranging contingencies	Refining of processing skills, integration of relevant structures and processes, formulation of action plans
Acting	Implementation and execution of intervention strategies, monitoring of therapeutic process and client growth and change, provision of support, encouragement, and challenge	Integration and refinement of relevant structures and processes through action and experience of consequences
Evaluating and assisting transfer	Summarizing, evaluation, planning for transfer, arranging follow-up procedures, termination work	Consolidation and generalization of client change, further integration of relevant cognitive structures and processes, internalization of therapeutic process

Figure Captions

Figure 1. A cognitive mediational model of therapeutic interaction, reprinted from Martin (1987b).

Figure 2. The elaboration likelihood model of attitude change, reprinted from Petty & Cacioppo (1986).

Figure 3. A decision tree for counseling that combines Martin's (1987b) cognitive instructional counseling and Petty and Cacioppo's (1986) elaboration likelihood model of attitude change.

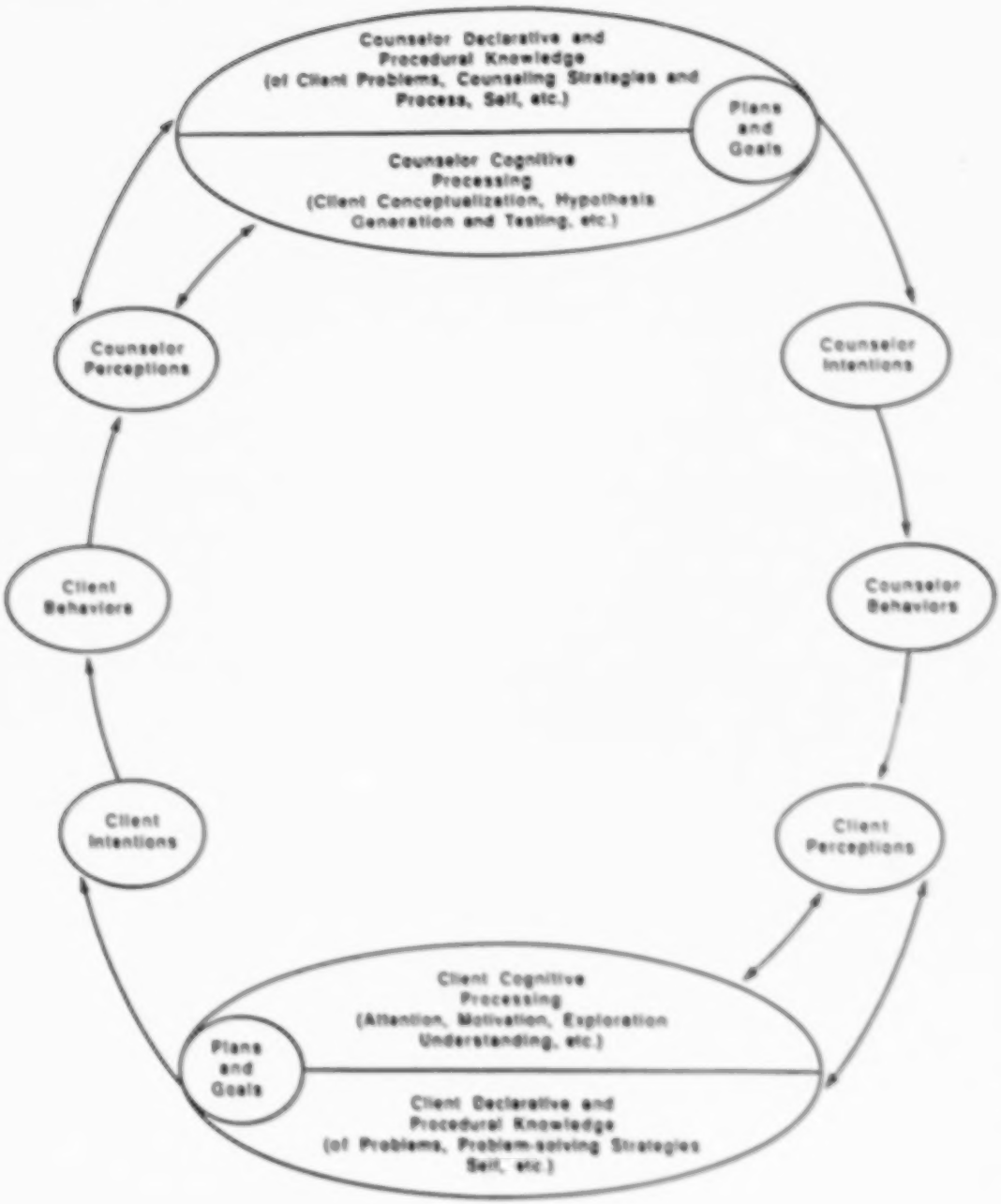

Figure 1. A Cognitive-Mediational Model of Therapeutic Interaction

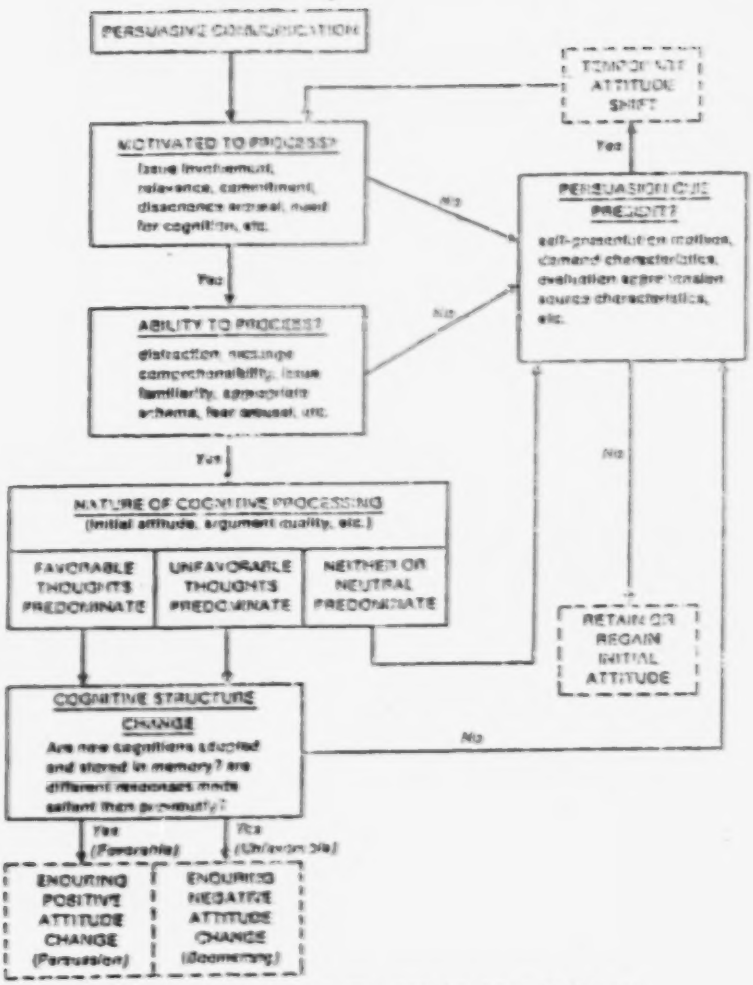

FIG. 2. The Elaboration Likelihood Model of Attitude Change.

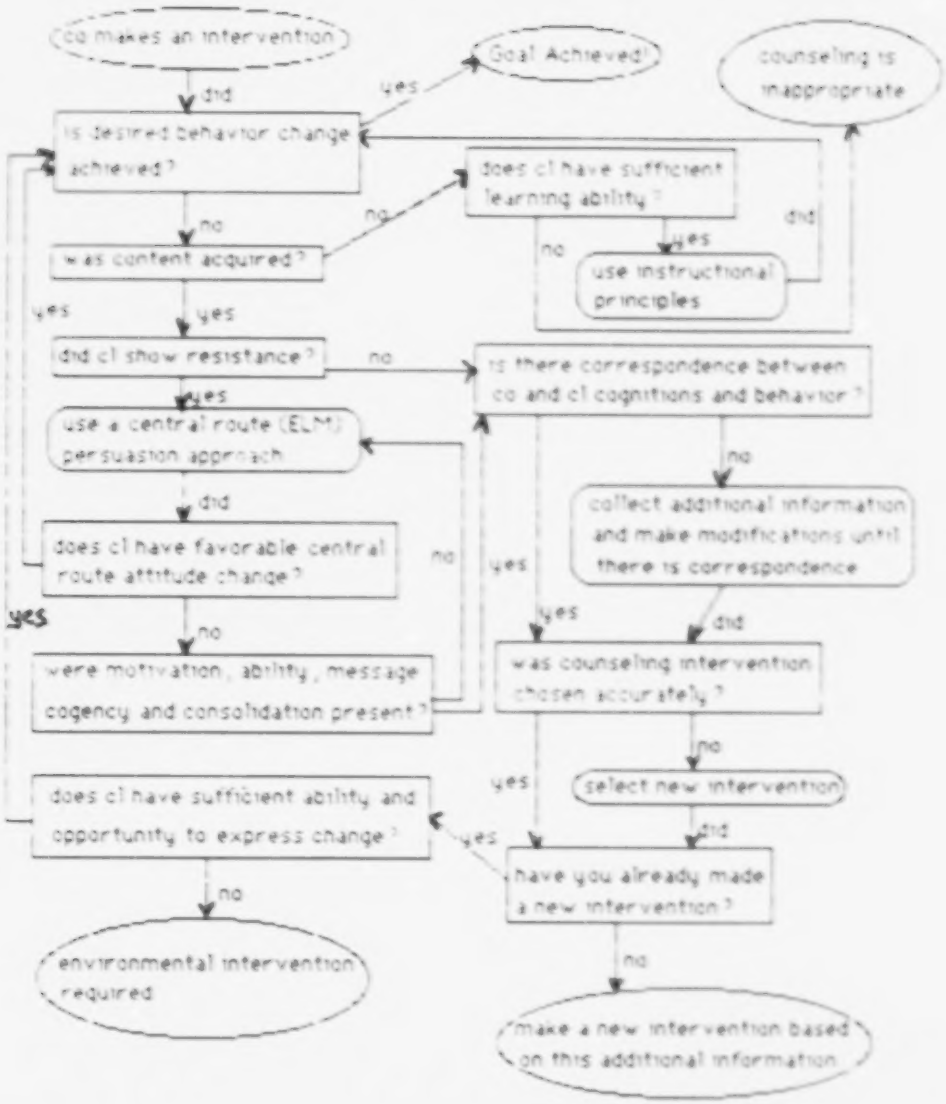

Figure 3 A practical decision tree for counseling, integrating Petty and Cacioppo's elaboration likelihood model of attitude change, Martin's cognitive mediational paradigm, and Martin and Hiebert's instructional counseling